REMARKS

Reconsideration of the objections and rejections set forth in the Notice of Non-Compliant Amendment mailed February 26, 2009 and the Office Action mailed on October 17, 2008, is respectfully requested. Claims 1, 6-14, 18-23, and 25 remain pending.

35 U.S.C. § 112

Claim 25 has been rejected under 35 U.S.C. § 112, second paragraph, as being allegedly vague and indefinite. In particular, the Examiner has taken the position that it is unclear why the method of claim 25 can be used to detect a polymorphism of cystic fibrosis when "claim 25 does not require that unlabeled blocker can specifically identify a polymorphism of cystic fibrosis while a detectable discriminator can specifically identify another polymorphism of cystic fibrosis." (Office Action, Page 2) Dependent claim 25 clearly and unambiguously states that "**the genetic disease**" is cystic fibrosis. This ties directly to the language of claim 1 which makes clear that the unlabeled blocker and the detectable discriminator are complementary to the first and second loci having a first and second polymorphism, respectively, related to "**the genetic disease**." Claim 1 requires that the sample nucleic acid contains "a first and a second loci having a first and second polymorphism, respectively, related to '**the genetic disease**.'" (Claim 1, lines 3-4) Claim 1 further requires that the unlabeled blocker "is complementary to the first locus containing the first polymorphism related to '**the genetic disease**'" and that the detectable discriminator "is capable of hybridizing with the second locus containing the second polymorphism related to '**the genetic disease**.'" (Claim 1, lines 5-6 and 9-10) Applicants

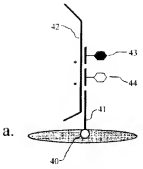
believe that no further clarification is necessary in claim 25 in light of the language in independent claim 1.

Art Rejections

Claims 1, 6-9, 18-20, 22, 23, and 25 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Nerenberg et al. (US 2001/0014449 A1) in view of Lannuzzi et al. (Am. J. Hum. Genet., 48, 227-231, 1991).

The Examiner has taken the position that "[a]lthough Figures [sic] 4a of Nerenberg *et al.*, does not teach that stabilizer probe 41 (i.e., the unlabeled blocker in claim 1) blocks the first polymorphism (i.e., the polymorphism in Figure 4a which is blocked by reporter probe 44), since Nerenberg *et al.* teach the SNP base amplicons [sic] is complementary to either the 3' base of the stabilizer/capture or the 5' base of the reporter probe (see page 4, [0031]), in view of the prior art of Nerenberg *et al.*, it would have been *prima facie* obvious to one having ordinary skill in the art ... to have modified stabilizer probe 41 and reporter probe 44 by optimization of the lengths of stabilizer probe 41 and reporter probe 44 such that the first polymorphism (ie, the polymorphism in Figure 4a which is blocked by reporter probe 44) is blocked by 3' base of the unlabeled blocker (ie., stabilizer 41) as recited in claim 1 and is not blocked by reporter probe 44." (Office Action, Page 8).

Applicants respectfully assert that one of ordinary skill in the art would not be motivated to make such a change because modifying stabilizer 41 such that it hybridizes to the SNP would defeat the purpose of that embodiment of the invention.



With respect to the embodiment in Fig. 4a, the goal is to detect multiple closely spaced SNPs at a single genetic locus. (See Paragraph 0112. "This format is useful where there are multiple closely spaced SNPs at a single genetic locus.") Nerenberg clearly teaches that that two reporter probes are necessary to detect the presence of the at least two SNPs. (See Paragraph 0111. "In Fig. 4a, ... two reporter probes 43 and 44 are hybridized to detect the presence of at least two SNPs." See also, Paragraph 0112 "In this format, the reporter probes are base-stacked against a stabilizer oligo and each of the reporters may be labeled with a different fluorophore specific for an allele that occurs at these sites.") If the length of the stabilizer was modified as proposed by the Examiner such that it hybridized to one of the SNPs, it would defeat the goal of the invention, which is to detect multiple SNPs, because you would not be able to detect the presence of the SNP that is hybridized to the stabilizer. Therefore, Nerenberg actually ***teaches away*** from the claimed invention. As noted by the Supreme Court in the KSR case "when the prior art ***teaches away*** from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious." *KSR v. Teleflex*, 127 S. Ct. 1727, 1740-41 (2007) (emphasis added).

Claims 6-9, 18-20, 22, 23, and 25 depend from claim 1 and are patentably distinct for the same reasons as applicable to claim 1. Therefore, Applicants respectfully request withdrawal of the rejections and reconsideration of the claims as amended.

Favorable action on the merits of the claims is therefore earnestly solicited. If any issues remain, please contact Applicant's undersigned representative at (949) 760-9600. The Commissioner is hereby authorized to charge any additional fees that may be required to Deposit Account No. 50-2862.

Respectfully submitted,
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